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(FILE 'HOME' ENTERED AT 11:49:19 ON 02 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:49:27 ON 02 MAY 2005

L1 STRUCTURE UPLOADED

L2 1 S L1

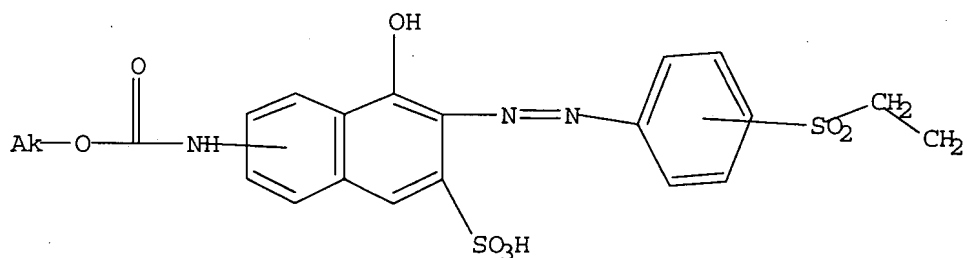
L3 11 S L1 FULL

FILE 'CAPLUS' ENTERED AT 11:50:07 ON 02 MAY 2005

L4 2 S L3

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L1 STR



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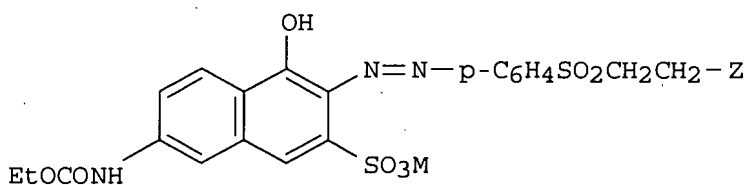
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L4 2 SEA FILE=CAPLUS ABB=ON PLU=ON L3

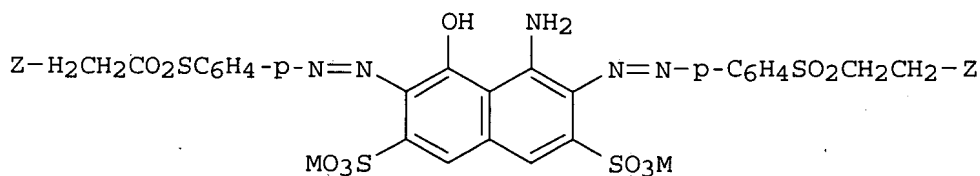
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L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626284 CAPLUS
 DN 131:258869
 TI Reactive black dye compositions for cellulose fibers
 IN Oh, Sea Wha; Kang, Myeong Nyeo; Kim, Tae Kyung; Song, Mi Kyoung
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948987 | A1 | 19990930 | WO 1999-KR146 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066351 | A1 | 20010110 | EP 1999-909386 | 19990326 |
| | EP 1066351 | B1 | 20020703 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507654 | T2 | 20020312 | JP 2000-537952 | 19990326 |
| | JP 3487827 | B2 | 20040119 | | |
| | US 6443997 | B1 | 20020903 | US 2000-646952 | 20001120 |
| PRAI | KR 1998-10610 | A | 19980326 | | |
| | WO 1999-KR146 | W | 19990326 | | |
| OS | MARPAT 131:258869 | | | | |
| GI | | | | | |



I



II

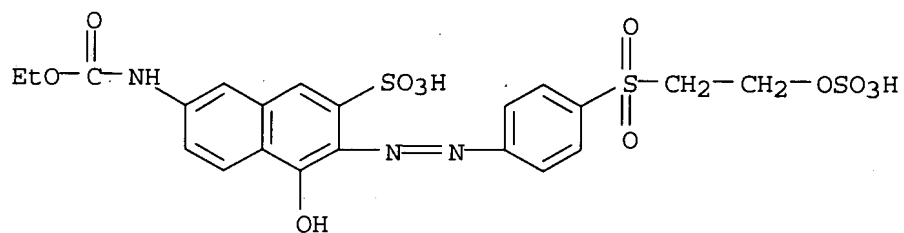
AB A reactive black dye composition with excellent several fastnesses, dyeing levelness, reproducibility and dyeing yield comprises a mixture with a certain amount ratio of an orange reactive dye I and a black dye II (Z = OSO3M, OAc; M = alkaline metal atom).

IT **244757-82-2P 244757-83-3P**

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reactive black dye compns. for cellulose fibers with excellent fastness and dyeing yield)

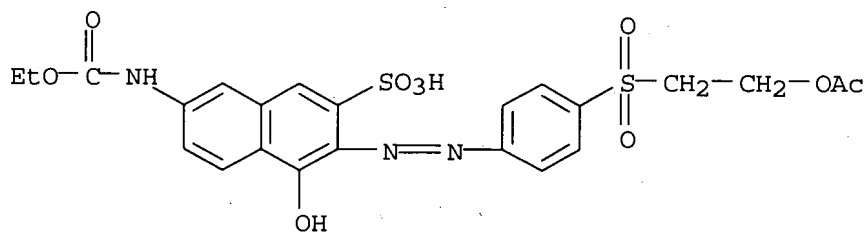
RN 244757-82-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[(ethoxycarbonyl)amino]-4-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azolo]disodium salt (9CI) (CA INDEX



● 2 Na

RN 244757-83-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-7-[(ethoxycarbonyl)amino]-4-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)

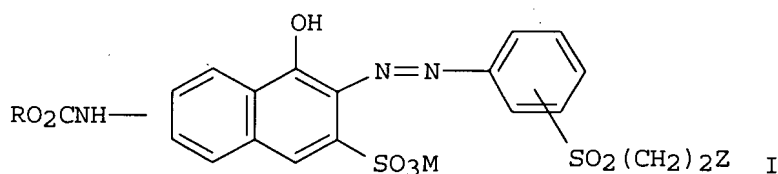


● Na

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626282 CAPLUS
 DN 131:258911
 TI Reactive orange azo dyes containing vinyl sulfone groups and their production
 IN Oh, Sea Wha; Kang, Myeong Nyeo; Kim, Tae Kyung
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

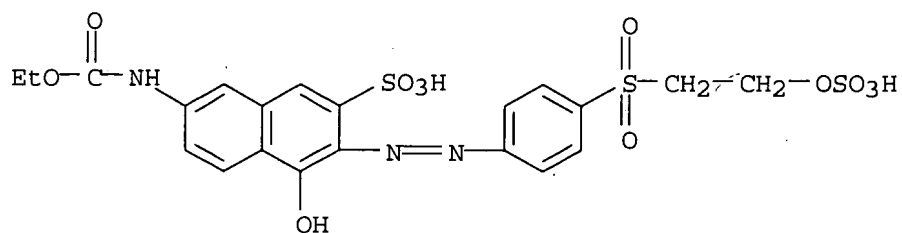
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948985 | A1 | 19990930 | WO 1999-KR142 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066348 | A1 | 20010110 | EP 1999-909382 | 19990326 |
| | EP 1066348 | B1 | 20030102 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507652 | T2 | 20020312 | JP 2000-537950 | 19990326 |
| | JP 3487826 | B2 | 20040119 | | |
| PRAI | KR 1998-10607 | A | 19980326 | | |
| | WO 1999-KR142 | W | 19990326 | | |
| OS | MARPAT 131:258911 | | | | |
| GI | | | | | |



AB The present invention relates to reactive orange dyes containing vinyl sulfone groups and more particularly, to dyes which have 6(7)-(alkoxycarbonylamino)-4-hydroxy-2-naphthalenesulfonic acid as a chromophore and an aminophenyl β -substituted Et sulfone derivative as an azo coupler. The dyes (I; M = alkaline metal; R = C1-4-alkyl; Z = OSO3M, acetoxy) provide excellent fastness to light, washing, perspiration, and chlorine as well as better dyeing yield than other monofunctional reactive dye. Thus, 6-amino-4-hydroxy-2-naphthalenesulfonic acid was neutralized with LiOH and condensed with Et chloroformate to give a coupling component to which was then added diazotized 4-aminophenyl β -Et sulfone to provide an orange dye.

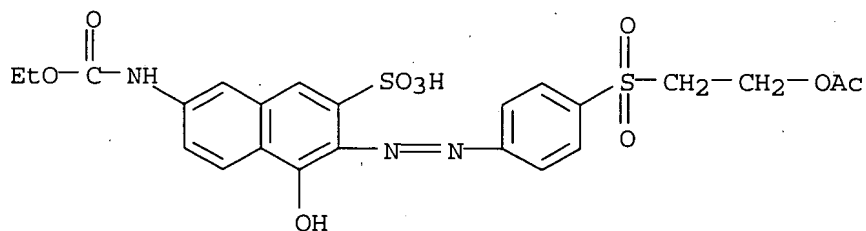
IT 244757-82-2P 244757-83-3P 245037-51-8P
 245037-54-1P 245037-55-2P 245037-56-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; production of reactive orange azo dyes containing vinyl sulfone groups)

RN 244757-82-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[(ethoxycarbonyl)amino]-4-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, disodium salt (9CI) (CA INDEX NAME)



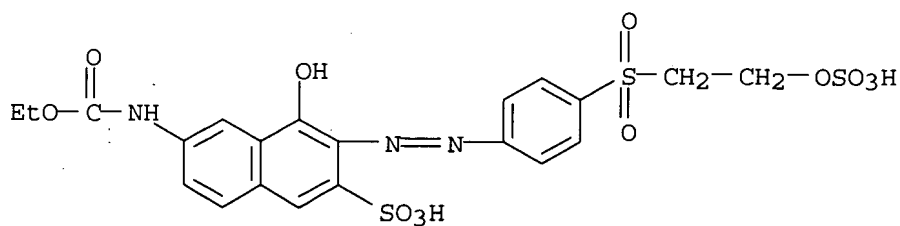
● 2 Na

RN 244757-83-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-7-[(ethoxycarbonyl)amino]-4-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)



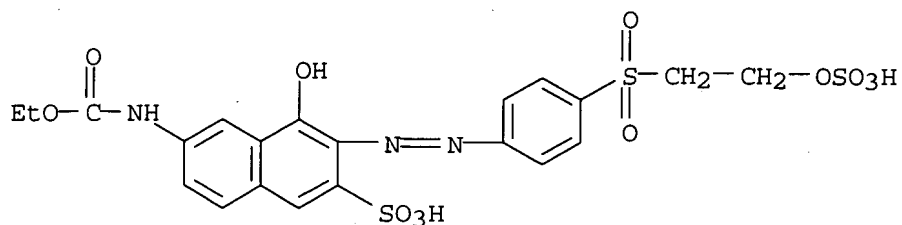
● Na

RN 245037-51-8 CAPLUS
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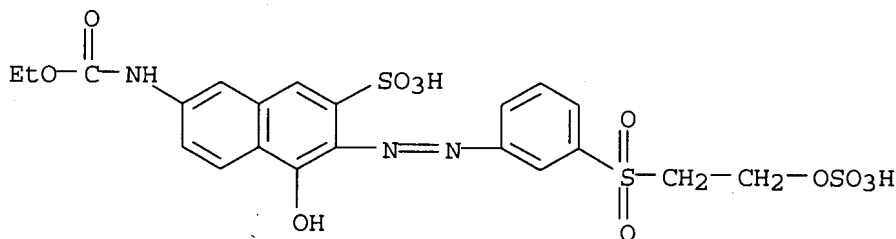
● 2 Na

RN 245037-54-1 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-[(ethoxycarbonyl)amino]-4-hydroxy-3-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, monosodium salt (9CI) (CA INDEX NAME)



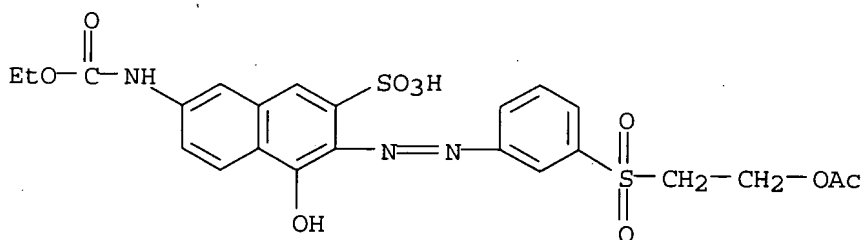
● Na

RN 245037-55-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[(ethoxycarbonyl)amino]-4-hydroxy-3-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]azo]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 245037-56-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[3-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-7-[(ethoxycarbonyl)amino]-4-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)



● Na

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(FILE 'HOME' ENTERED AT 11:49:19 ON 02 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:49:27 ON 02 MAY 2005

L1 STRUCTURE UPLOADED
L2 1 S L1
L3 11 S L1 FULL

FILE 'CAPLUS' ENTERED AT 11:50:07 ON 02 MAY 2005

L4 2 S L3
E OH WEA WHA/AU
E OH SEA WHA/AU
L5 19 S E3
E KANG MYEONG NYEO/AU
L6 6 S E3
E KIM TAE KYUNG/AU
L7 98 S E3
L8 111 S L5 OR L6 OR L7
L9 14 S L8 AND REACTIVE
L10 7 S L9 AND (AZO OR MONOAZO)

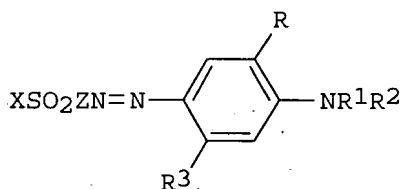
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L5 19 SEA FILE=CAPLUS ABB=ON PLU=ON "OH SEA WHA"/AU
L6 6 SEA FILE=CAPLUS ABB=ON PLU=ON "KANG MYEONG NYEO"/AU
L7 98 SEA FILE=CAPLUS ABB=ON PLU=ON "KIM TAE KYUNG"/AU
L8 111 SEA FILE=CAPLUS ABB=ON PLU=ON L5 OR L6 OR L7
L9 14 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND REACTIVE
L10 7 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND (AZO OR MONOAZO)

=> d 1-7 bib abs

L10 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:555585 CAPLUS
 DN 137:126419
 TI Disperse-**reactive** azo dyes containing
 acetoxyethylsulfonyl or vinylsulfonyl groups and their production
 IN Oh, Sea Wha; Shin, Seung Rim; Kim, Tae Kyung; Kim, Sun
 Il; Shin, Jong Il
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2002057370 | A1 | 20020725 | WO 2002-KR69 | 20020116 |
| | W: CN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | KR 2002061777 | A | 20020725 | KR 2001-2733 | 20010117 |
| | KR 2002061916 | A | 20020725 | KR 2001-3009 | 20010118 |
| | KR 2002063391 | A | 20020803 | KR 2001-4026 | 20010129 |
| | EP 1352032 | A1 | 20031015 | EP 2002-715901 | 20020116 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | JP 2004525208 | T2 | 20040819 | JP 2002-558434 | 20020116 |
| | US 2004077846 | A1 | 20040422 | US 2003-466356 | 20030716 |
| | US 6884876 | B2 | 20050426 | | |
| PRAI | KR 2001-2733 | A | 20010117 | | |
| | KR 2001-3009 | A | 20010118 | | |
| | KR 2001-4026 | A | 20010129 | | |
| | WO 2002-KR69 | W | 20020116 | | |
| OS | MARPAT 137:126419 | | | | |
| GI | | | | | |



AB The invention relates to water-insol. disperse-**reactive** dyes (I; R, R¹, R², R³ = H, alkyl, alkoxy, cyanoalkyl, aminoacetyl; X = 2-acetoxyethyl, vinyl; Z = aromatic or benzothiazole connecting group) by diazotization of XSO₂ZNH₂ and coupling with the appropriate substituted aniline. I have good fastness properties. In an example, orange (λ_{max} 459 nm) 2-acetoxyethyl 4-aminophenyl sulfone→N,N-diethylaniline was prepared in 88.5% yield.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

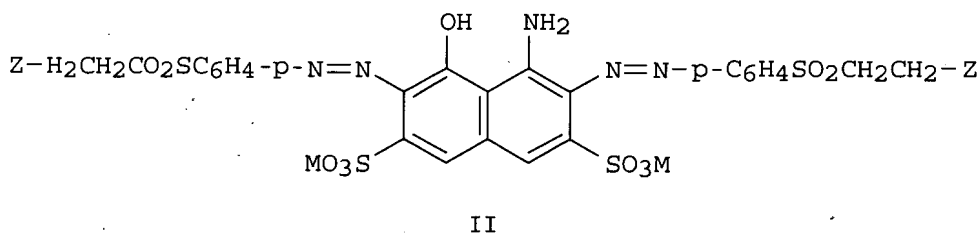
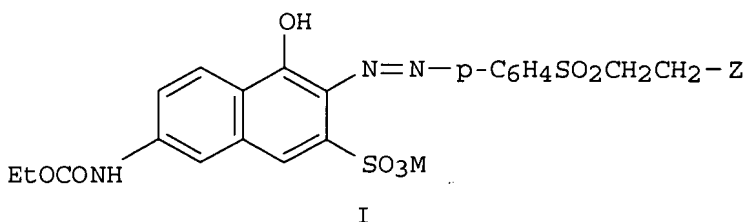
L10 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:472911 CAPLUS
DN 137:7496
TI Preparation of blue **reactive** dyes having high dyeability and
reliability without generating dye wastewater
IN **Kang, Myeong Nyeo**; Kwon, Eun Gyeong; Kim, Jin Su; Song, Mi
Gyeong; Oh, Se Hwa; Yoon, Seong Nyeong
PA Korea Research Institute of Chemical Technology, S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN. CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | KR 2000055599 | A | 20000915 | KR 1999-4295 | 19990208 |
| PRAI | KR 1999-4295 | | 19990208 | | |

AB The three-effector type **reactive** dyes contain one monochlorotriazine and two vinyl sulfonyl groups in one dye mol. and is prepared by steps: (1) diazotizing a compound and coupling the diazotized compound with an 1-naphthol-8-amino-3,6-disulfonic acid neutral solution, (2) separating condensed product from a reaction of phenylenediamine with cyanuric chloride at a temperature 0-5°, (3) adding the reaction solution from step 1 at a temperature 0-5° and performing a coupling reaction at a pH <7, and adding aminophenyl-beta-acetoxyethylsulfone or aminophenyl-beta-sulfatoethylsulfone to the coupling solution of the step (3) at a temperature 35-45°.

L10 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626284 CAPLUS
 DN 131:258869
 TI **Reactive** black dye compositions for cellulose fibers
 IN **Oh, Sea Wha; Kang, Myeong Nyee; Kim, Tae Kyung**
 ; Song, Mi Kyoung
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 18 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948987 | A1 | 19990930 | WO 1999-KR146 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066351 | A1 | 20010110 | EP 1999-909386 | 19990326 |
| | EP 1066351 | B1 | 20020703 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507654 | T2 | 20020312 | JP 2000-537952 | 19990326 |
| | JP 3487827 | B2 | 20040119 | | |
| | US 6443997 | B1 | 20020903 | US 2000-646952 | 20001120 |
| PRAI | KR 1998-10610 | A | 19980326 | | |
| | WO 1999-KR146 | W | 19990326 | | |
| OS | MARPAT 131:258869 | | | | |
| GI | | | | | |

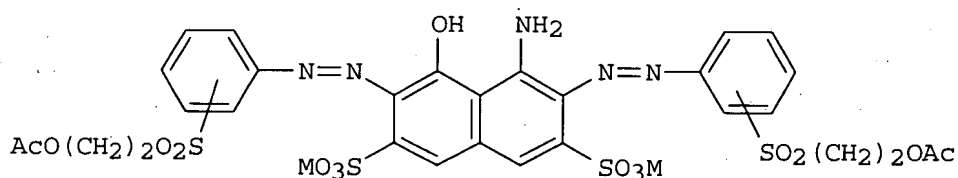


AB A **reactive** black dye composition with excellent several fastnesses, dyeing levelness, reproducibility and dyeing yield comprises a mixture with a certain amount ratio of an orange **reactive** dye I and a black dye II (Z = OSO3M, OAc; M = alkaline metal atom).

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626283 CAPLUS
 DN 131:258868
 TI **Reactive** black dyes containing acetoxymethyl sulfone moiety
 IN **Oh, Sea Wha; Kang, Myeong Nyeo;** Shin, Seung Rim;
Kim, Tae Kyung; Yun, Sung Nyung
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 19 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948986 | A1 | 19990930 | WO 1999-KR144 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066349 | A1 | 20010110 | EP 1999-909384 | 19990326 |
| | EP 1066349 | B1 | 20030611 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2002507653 | T2 | 20020312 | JP 2000-537951 | 19990326 |
| | JP 3567137 | B2 | 20040922 | | |
| | US 6326474 | B1 | 20011204 | US 2000-646938 | 20001120 |
| PRAI | KR 1998-10606 | A | 19980326 | | |
| GI | WO 1999-KR144 | W | 19990326 | | |

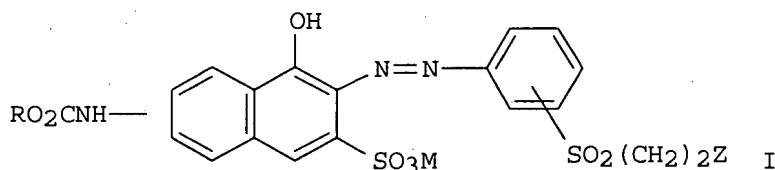


AB The black dyes I (M = alkaline metal atom) is characterized by lessening the loss of dyes in filtering process owing to the low solubility by introducing the aminophenyl- β -acetoxymethyl sulfone moiety, saving the cost for waste water treatment by using a small amount of salt in salting-out process and furthermore obtaining bright color with high dyeing yield and good substantivity.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626282 CAPLUS
 DN 131:258911
 TI **Reactive orange azo dyes** containing vinyl sulfone groups and their production
 IN **Oh, Sea Wha; Kang, Myeong Nyee; Kim, Tae Kyung**
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948985 | A1 | 19990930 | WO 1999-KR142 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066348 | A1 | 20010110 | EP 1999-909382 | 19990326 |
| | EP 1066348 | B1 | 20030102 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507652 | T2 | 20020312 | JP 2000-537950 | 19990326 |
| | JP 3487826 | B2 | 20040119 | | |
| PRAI | KR 1998-10607 | A | 19980326 | | |
| | WO 1999-KR142 | W | 19990326 | | |
| OS | MARPAT 131:258911 | | | | |
| GI | | | | | |

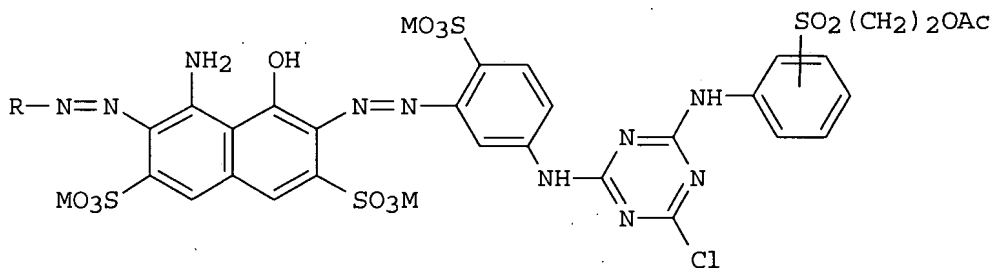


AB The present invention relates to **reactive orange dyes** containing vinyl sulfone groups and more particularly, to dyes which have 6(7)-(alkoxycarbonylamino)-4-hydroxy-2-naphthalenesulfonic acid as a chromophore and an aminophenyl β -substituted Et sulfone derivative as an **azo coupler**. The dyes (I; M = alkaline metal; R = Cl-4-alkyl; Z = OSO3M, acetoxy) provide excellent fastness to light, washing, perspiration, and chlorine as well as better dyeing yield than other monofunctional **reactive dye**. Thus, 6-amino-4-hydroxy-2-naphthalenesulfonic acid was neutralized with LiOH and condensed with Et chloroformate to give a coupling component to which was then added diazotized 4-aminophenyl β -Et sulfone to provide an orange dye.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:626281 CAPLUS
 DN 131:258910
 TI **Reactive** blue dyes containing monochlorotriazine and
 acetoxymethyl sulfone groups and their production
 IN **Oh, Sea Wha; Kang, Myeong Nyeo; Kim, Tae Kyung**
 PA Korea Research Institute of Chemical Technology, S. Korea
 SO PCT Int. Appl., 21 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948984 | A1 | 19990930 | WO 1999-KR143 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1071727 | A1 | 20010131 | EP 1999-909383 | 19990326 |
| | EP 1071727 | B1 | 20020612 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507651 | T2 | 20020312 | JP 2000-537949 | 19990326 |
| | JP 3567136 | B2 | 20040922 | | |
| | US 6307033 | B1 | 20011023 | US 2000-646936 | 20001120 |
| PRAI | KR 1998-10609 | A | 19980326 | | |
| GI | WO 1999-KR143 | W | 19990326 | | |



I

AB Bifunctional blue **reactive** dyes and more particularly, dyes with monochlorotriazine and 2-acetoxyethyl sulfone **reactive** groups (I; R = C₆H₄-p-SO₃M, M = alkaline metal atom) are prepared, which provide an excellent combination of properties in that (1) the introduction of aminophenyl β-acetoxyethyl sulfone group to the dye may minimize the loss of dye, since its low solubility in water lessens the amount of the remaining solution during filtration, (2) an easier salting-out process requires a smaller amount of salt during the process so that the costs for the treatment of waste water may be significantly reduced, and (3) a better dyeing yield with enhanced substantivity and better brightness in color. Thus, p-sulfanilic acid-1-naphthol-8-amino-3,6-disulfonic acid was prepared and coupled with the diazotized 1:1 adduct of m-phenylenediamine-4-sulfonic acid and cyanuric chloride and the resulting dichlorotriazinyl disazo compound was condensed with 2-acetoxyethyl 4-aminophenyl sulfone to provide a blue **reactive** dye.

RE CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

09/646,937

Page 14

L10 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:626280 CAPLUS

DN 131:258909

TI **Reactive** red dyes containing monochlorotriazine and acetoxymethyl sulfone groups and their production

IN **Oh, Sea Wha; Kang, Myeong Nyee;** Shin, Seung Rim;
Kim, Tae Kyung; Song, Mi Kyoung

PA Korea Research Institute of Chemical Technology, S. Korea

SO PCT Int. Appl., 20 pp.

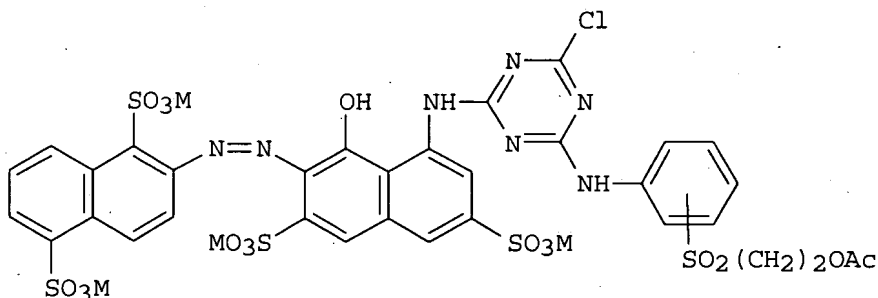
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9948983 | A1 | 19990930 | WO 1999-KR145 | 19990326 |
| | W: CN, IN, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1066344 | A1 | 20010110 | EP 1999-909385 | 19990326 |
| | EP 1066344 | B1 | 20020724 | | |
| | R: CH, DE, GB, LI | | | | |
| | JP 2002507650 | T2 | 20020312 | JP 2000-537948 | 19990326 |
| | JP 3567135 | B2 | 20040922 | | |
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| OS | MARPAT 131:258909 | | | | |
| GI | | | | | |



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AB Bifunctional red **reactive** dyes and more particularly, dyes with monochlorotriazine and acetoxymethyl sulfone **reactive** groups (I; M = alkaline metal atom) are obtained, which provide excellent combination of properties in that (1) the introduction of an aminophenyl β -acetoxymethyl sulfone group to the dye may minimize the loss of dye, since its low solubility in water lessens the amount of the remaining solution during filtration, (2) an easier salting-out process requires a smaller amount of salt during the process so that the costs for the treatment of wastewater may be significantly reduced, and (3) a better dyeing yield with enhanced substantivity and better brightness in color. In an example, a 1:1 condensate of 1-naphthol-8-amino-3,6-disulfonic acid was used as a coupling component with diazotized 2-amino-1,5-naphthalenedisulfonic acid diazo component and the resulting dichlorotriazine **azo** dye was condensed with 2-acetoxyethyl-4-aminophenyl sulfone to provide a red **reactive** dye.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT